News for and about the Coastal Management Fellows

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FOCUS ON FELLOWS: JENNIFER DARE 2003–2005

Having a father who is always ready to hit the surf and a mother with a passion for the beach gave Fellow Jennifer Dare a number of opportunities to explore the creatures of the ocean and wonders of the tide pools. Every summer, she and her family would make the trek from Bensalem, Pennsylvania, to the southern New Jersey shore. Jennifer's passion for the water came from endless days at the beach and time spent on the family boat. In fact, she is fairly certain she has always wanted to be a marine scientist, and says, "I had such a strong connection to the coast—it was always my favorite place to be."

Richard Stockton College of New Jersey was just minutes from the beach where Jennifer spent her summers as a child. So, choosing Stockton as her undergraduate school was an easy decision. The town was like a second home to her, and the school had all she was looking for. Stockton had a strong marine science program from which Jennifer graduated with a concentration in marine resource management. The school was also fairly small, which allowed Jennifer to work closely and form long-lasting relationships with her



Jennifer in front of the Bay Bridge in San Francisco, CA.

professors. Her love of the water didn't end with her choice of classes. Jennifer also spent her free time as a four-year member of the crew team, and during her last two years in school, she led eco-tours at the Cape May Whale Watch and Research Center.

After graduating from Stockton, Jennifer went to work as a seasonal biologist for the New Jersey Department of Environmental Protection's Division of Fish, Game, and Wildlife Endangered and Non-Game Species Division. Her primary responsibility was collecting, organizing, and compiling data on endangered beach nesting birds. She worked to protect and restore the nesting habitat and also spent a lot of time educating the public on the importance of protecting the birds and their habitat. In addition, she collected and processed data on various types of fish used in a variety of research projects for marine fisheries.

Despite her passion and interest in coastal resource management, Jennifer went off on "a bit of a tangent," as she puts it, and moved to New York City to work in the high-fashion world as a sales and marketing assistant. From NYC, she took off to Park City, Utah, where she bartended and waited tables to support her fondness for the ski slopes. Since she had always considered herself a beach girl, Jennifer's admitted infatuation with snowboarding and a growing love for the mountains caught her off guard.



Although the mountains held her interest much longer than she had anticipated, the lure of the coast and coastal issues prevailed and finally she decided to return. This time, however, it was not the east coast but rather the west coast that called to her.

Jennifer applied to the marine resource management program at Oregon State University. The program particularly interested her because it included all aspects of oceanography (physical, chemical, biological, and geological)

and also allowed her to tailor coursework to her specific interests. For her master's project, Jennifer researched the management implications of alternative shore protection methods—a project that was right in line with her interest in coastal land use and shoreline dynamics. And, living in Corvallis, Oregon, Jennifer was able to do all the outdoor activities such as snowboarding, mountain biking, and trail running that she had grown so fond of in Park City.

As graduation again approached, Jennifer began to think about her next steps. She heard about the fellowship program from an e-mail at school and knew that other students from her program had been selected as fellows in the past. With the encouragement of the director of her graduate program, she decided to apply.

Jennifer was selected as a finalist and matched with the California Coastal Commission to develop a geographic



Jennifer observing a bluff after the landslide in Daly City, CA.

information system (GIS)-based predictive tool for coastal bluff erosion. The goal of this project is to develop a database that catalogs coastal erosion rates for areas of the California coast and create a pilot GIS-based erosion prediction tool based on these data. By having all these existing erosion rate data in one place, state and local coastal managers can evaluate data that are submitted for coastal permits. Ideally, these data will help guide future land-use planning decisions.

Although most of the data are submitted to the commission as part of the permit application process, Jennifer collects the erosion rate data for the GIS from a variety of sources. Since these permit applications are usually associated with a single land parcel, the rates are unique to that parcel. By combining all these data into a GIS, erosion rates can be assessed on a more regional scale. The rates can

also be compared more easily to rates from other sources, such as academic or government studies, which are also included in the GIS. As a final step in the project, the GIS will be posted on the commission's Web site as an ArcIMS interface. Jennifer will hold meetings to train stakeholders on how to use the site and will investigate integrating other existing marine data—such as nearshore bottom types—into the GIS. This information will help to identify areas with resources at risk from coastal erosion and armoring.

Jennifer is confident that the framework for this system will be in place when she completes her fellowship, and since there are always new data being collected, the tool can continue to grow. Furthermore, the benefit of storing these data in a GIS is that, provided it is properly maintained, it is a dynamic tool that will always be useful. Jennifer will work



with staff members at the commission to ensure that this system is attended to once the project is complete.

Although Jennifer's coursework has included GIS classes, she feels that the fellowship has given her more practical skills by helping her see how GIS can be used in the real world. Additionally, the fellowship has provided Jennifer with the opportunity to meet colleagues with similar interests at several conferences. The fellowship has also given her the chance to serve on various committees such as the Coastal Sediment Management Workgroup and the Monterey **Bay National Marine Sanctuary** Erosion Task Force.

Jennifer has greatly enjoyed living and working in San Francisco. All the open space she has managed to find in the bay area has impressed her considerably, and she has found it to be a very different "big city" experience than her stint in Manhattan. Her five-year-old black lab, Killian, has had no complaints either and has become very familiar with the beaches and trails around the bay area. With all the open space that is available to hike and run, Jennifer has had no trouble finding recreational activities that appeal to her.

In the future, Jennifer hopes to take her experience with

geospatial technology and natural hazards management and expand her knowledge. She has considered going back to school for a PhD, but says, "then I wonder if I am completely crazy!" Either way, more schooling is not in her immediate plans. She would like to continue working with data and technology, but wants to keep a focus on interacting with people daily. Geographically, she's pretty flexible. "I've lived on both ocean coasts and in between, so

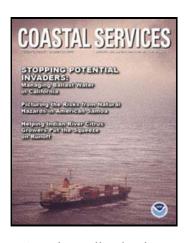
To find out more about the California Coastal Commission's erosion project, e-mail Jennifer at *jdare@coastal.ca.gov*.

I am up for anything."

FOCUS ON THE CENTER: NEED HELP GETTING COASTAL MANAGEMENT INFORMATION? THIS INFORMATION MIGHT HELP.

There is a lot that the various state programs can learn from each other. That's why the NOAA Coastal Services Center created *Coastal Services*. This bimonthly magazine focuses on the issues facing the nation's coastal management community from the perspective of the state program. Each story profiles how an agency is addressing an issue, with the hopes that readers will not only learn from the stories but will also pick up the phone and begin talking with others in similar circumstances.

The topics vary widely. Recent issues, for instance, profiled effective volunteer programs, environmentally friendly golf course design techniques, beach nourishment, and undesirable visitor impacts.





A sister publication, *Coastal Connections*, is smaller, but is written for the same audience. *Coastal Connections* is a primer for the coastal resource management community, with each issue focusing on one tool of interest to this community. Recent issues have covered working with the media, social science tools, coastal observation systems, and the economics of coastal management.

Both publications are available free of charge. If you have specific information needs, go to the home page for these publications and use the search tool. To subscribe, view previous issues, or uses the search tool, visit www.csc.noaa.gov/bins/pubs.html.



FOCUS ON THE FELLOWSHIP: 2005 MATCHING WORKSHOP

Four fellows were matched with four state coastal zone management programs at this year's matching workshop, which was held April 19 through 22, 2005, in Charleston, South Carolina. The fellows will be working on a wide variety of coastal projects—from assessing shoreline datums to assessing the visual impacts of development.



California

Fellow **Sara Polgar** was matched with the San Francisco Bay Conservation and Development Commission (BCDC) to develop a comprehensive plan for the San Francisco Bay Water Trail. Sara completed an MS in environmental science and management, with a specialization in coastal and marine resource management, at the University of California, Santa Barbara. Her mentor, Joe LaClair, is BCDC's senior planner specializing in recreation issues. Sara will coordinate with key recreation and environmental agencies to develop a baywide policy plan and program for implementation of the San Francisco Bay Water Trail.

Connecticut

Fellow **Terry Yasuko Ogawa** was matched with the Connecticut Department of Environmental Protection Office of Long Island Sounds Programs (OLISP) to develop techniques to assess the visual impact of proposed development on Connecticut's coast. Terry earned an MS in natural resources and the environment at the University of Michigan. Her mentor, David Blatt, is the supervisor of OLISP's Coastal Planning Section. The goal of this project is to develop and begin to use a visual impact assessment methodology.



Upcoming Center Training

*Training classes are limited to project partners and NOAA line offices

JULY

11-15: Introduction to ArcGIS I and Coastal Applications using ArcGIS

British Virgin Islands

8: Understanding Marine Protected Areas (MPAs)
Ft. Fisher Aquarium, North Carolina

Project Design and Evaluation Lite
Coastal Zone '05. New Orleans, Louisiana

AUGUST

17:

8–12: Coastal Applications using ArcGIS and Remote Sensing for Spatial Analysts NOS Headquarters, Silver Spring, Maryland

29–31: Project Design and Evaluation Duluth, Minnesota

Upcoming Conferences & Events

JULY

15-19: National Association of Counties Annual Conference

Location: Honolulu, Hawai'i

www.naco.org

17-21: Coastal Zone 05 (CZ 05)

Location: New Orleans, Louisiana

www.csc.noaa.gov/cz/

25-29: Twenty-Fifth Annual ESRI International User Conference

Location: San Diego, California www.esri.com/events/uc/index.html

30-Aug. 4: Soil and Water Conservation Society Environmental Management Conference

Location: Rochester, New York

www.swcs.org/en/conferences/swcs_international_conference/

SEPTEMBER

19-23: Oceans 2005 Conference: One Ocean

Location: Washington, D.C. www.oceans2005.org

For more information on upcoming events, please visit www.csc.noaa.gov/cms/conferences.html.

Maryland

Fellow **Lindsay Leiterman** was matched with the Maryland Department of Natural Resources Coastal Zone Management Division to develop and distribute a watershed planning toolbox for local governments. Lindsay earned an MS in environmental management at Duke University. She will be co-mentored by Mary Conley, the Maryland Coastal Planning Program manager, and Christine Conn, the acting director of the Landscape and Watershed Analysis Division of the Department of Natural Resources. The goal of this project is to develop a toolbox for local governments, watershed organizations, and others to assist them with their watershed planning efforts.



The toolbox will contain a variety of information such as geospatial data collections, technical guidance documents, and available technical and financial resources.



North Carolina

Fellow **Patrick Limber** was matched with the North Carolina Division of Coastal Management to assess the North Carolina shoreline datum. Patrick completed an MS in coastal geology at the University of California, Santa Cruz. His mentor, Jeff Warren, is the coastal hazards analyst at the Department of Coastal Management. Patrick will assess the shoreline datums in North Carolina and use a time series of historic data to calculate a long-term rate of shoreline change.



